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10/698,157

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EXAMINER

TECKLU, ISAAC TUKU

ART UNIT

PAPER NUMBER

2192

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,157	<b>Applicant(s)</b> RIBLING, STEVEN K.	
	<b>Examiner</b> ISAAC T. TECKLU	<b>Art Unit</b> 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

1. Claims 1-3 and 5-23 have been examined.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/29/2009 has been entered.

#### ***Response to Arguments***

3. Applicant's arguments filed 02/13/2009 have been fully considered but they are not persuasive.

##### Argument:

“Richardson discloses a system and method that uses preset code modules, which are not reconfigurable to perform a test in a selected control file.” (Remark pp. 11)

##### Response:

The examiner respectfully disagrees with the above argument. Richardson discloses a system and method that uses reconfigurable codes to perform a test in a selected control file. It is clear that the test executive has to be configured to select test sequences, in order to have the sequences being organized and executed. Richardson clearly teaches the above concept (see at least paragraph [0004] “... test executive software allows the user to configure control test sequence execution for

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various test applications, such as production and manufacturing test applications...”, paragraph [0114] “... define properties around a class of steps to provide more configurability...”, paragraph [0017] “... Unit Under Test (UUT)...”, paragraph [0123] “... measurement configuration parameters...”, *emphasis added*).

Thus, it is respectfully submitted that the above argument is not persuasive and the rejection has been maintained as set forth in the Office Action.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3 and 5-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Richardson (US 20020166081 A1).

Per claim 1 (Currently Amended), Richardson discloses data-empowered test program architecture stored on a computer readable storage medium and configured to receive data from an external source (see at least e.g. FIG. 2 and related text), comprising:

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a plurality of control files, each control file including a test for one of a plurality of units-under-test and instructions for executing the test sequence (see at least paragraph [0004] "... test executive is a program ... organize test sequences...", paragraph [0147] "... sequence files... normal sequence files... files contain sequence that test a UUT...");

a test framework software module associated with the plurality of control files and storing reconfigurable code for selectively performing the test in each control file, wherein the test framework software module is configured to receive a selected test control file based on a particular unit-under-test (see at least paragraph [0004] "... test executive software allows the user to configure control test sequence execution for various test applications, such as production and manufacturing test applications...", paragraph [0114] "... define properties around a class of steps to provide more configurability...", paragraph [0017] "... Unit Under Test (UUT)...", paragraph [0123] "... measurement configuration parameters..."),

receive, from the external source, data for reconfiguring the reconfigurable code to perform the test in the selected control file (see at least paragraph [0004] "... test executive software allows the user to configure control test sequence execution for various test applications, such as production and manufacturing test applications..."),

determine how to perform the selected test (paragraph [0015] "... modules that provide an application programming interface... executing and debugging sequences..." and paragraph [0016] and e.g. FIG. 3, step 302 and related text) and

perform the selected test (see at least paragraph [0063] "...interface programs...other software programs..." paragraph [0015] "... modules that provide an application programming interface... executing and debugging sequences..." and paragraph [0016]).

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Per claim 2, Richardson discloses the architecture of claim 1 wherein the test framework software module further comprises a hardware abstraction interface (see at least paragraph [0064] “... adapter interface to one or more adapters...”).

Per claim 3, Richardson discloses the architecture of claim 1, further comprising an external reuse library having one or more test descriptions of common signal types and being coupled for generating the control files (see at least paragraph [0078] “... library for the parameter list ... sequence developer...”).

Per claim 5 (Currently Amended), Richardson discloses the architecture of claim 1, further comprising a plurality of software components in a software components module coupled for interaction with the test framework software module (see at least e.g. FIG. 2, 202 and related text) and structured for outputting at least one test program, wherein the software components module further comprises a pass/fail analyzer and report generator having one or more modes of pass/fail analysis and test reporting (see at least paragraph [0004] “... pass/fail results ...”).

Per claim 6 (Currently Amended), Richardson discloses a data-empowered test program architecture stored on a computer readable storage\_ comprising:

a plurality of external control files having a list of test identification numbers, each test identification number defining a test sequence and instructions for executing the test sequence (see at least paragraph [0147] “... sequence files... normal sequence files... files contain sequence that test a UUT...”);

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a test executive module having an execution engine coupled to receive one or more test identification numbers from the list of test identification numbers based on a unit-under test, the test identification number configured to generate, as a function of the one or more test identification numbers a plurality of test actions to be performed on the unit-under-test as defined in the test (see at least paragraph [0004] "... test executive is a program ... organize test sequences...");

a test framework module for accessing the plurality of tests and the instructions, and for storing reconfigurable code for selectively performing the test in each control file, wherein the test framework module configured to perform, based on the instructions, the steps of: (see at least paragraph [0004] "... test executive software allows the user to configure control test sequence execution for various test applications, such as production and manufacturing test applications...", paragraph [0015] "... modules that provide an application programming interface... executing and debugging sequences..." and paragraph [0016]):

[[i]] determining an identification of one of the test hardware resources associated with a current one of the test action (see at least paragraph [0112] "... test module... unit configured ..."),

[[ii]] retrieving the identification of the associated test hardware resource (see at least paragraph [0201] "... object difference..."),

[[iii]] determining a signal type corresponding to the retrieved test hardware resource identification (e.g. FIG. 15 and related text),

[[iv]] accessing as a function of the signal type one of the external control files having test hardware resource card-type information (e.g. FIG. 3 and related text), and

[[v]] determining the test hardware resource card-type information as a function of a card-type identifier (see at least paragraph [0057] and e.g. FIG. 3 and related text),

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receiving, from the external source, data for reconfiguring the reconfigurable code to perform the current one of the test actions see at least paragraph [0004] “... test executive software allows the user to configure control test sequence execution for various test applications, such as production and manufacturing test applications...”, paragraph [0114] “... define properties around a class of steps to provide more configurability...”, paragraph [0017] “... Unit Under Test (UUT)...”, paragraph [0123] “... measurement configuration parameters...”), and

performing the current one of the test actions (see at least paragraph [0063] “...interface programs...other software programs...” paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016]).

Per claim 7, Richardson discloses the architecture of claim 6 wherein the test hardware resource card-type information includes routing data and parameters for interfacing with an external hardware driver (see at least paragraph [0057] and e.g. FIG. 3 and related text).

Per claim 8, Richardson discloses the architecture of claim 6, further comprising an external reuse library having a plurality of test descriptions corresponding to a plurality of different test signal types (see at least paragraph [0078] “... library for the parameter list ... sequence developer...”).

Per claim 9, Richardson discloses the architecture of claim 6, further comprising a plurality of software components for interfacing between the external control files and one or more of the test executive module and the test framework module (see at least paragraph [0147] “... sequence files... normal sequence files... files contain sequence that test a UUT...”).



Per claim 10, Richardson discloses the architecture of claim 9 wherein the plurality of software components further comprises one or more modes of pass/fail analysis and test reporting (see at least paragraph [0015] “... pass/fail results ...”).

Per claim 11 (Currently Amended), Richardson discloses computing device, comprising:

means for storing a plurality of test actions; (e.g. FIG. 3 and related text)

means for determining which test actions of the plurality of test actions are to be performed on one of a plurality of units-under-test (see at least paragraph [0004] “... test executive is a program ... organize test sequences...”);

means for determining which instructions to use when performing the plurality of test actions (paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016]);

means for identifying, based on the instructions, test hardware resources associated with a current one of the plurality test actions (see at least paragraph [0057] and e.g. FIG. 3 and related text, e.g. FIG. 14 and related text); and

means for receiving the current one of the plurality of test actions (see at least paragraph [0004] “... test executive software allows the user to configure control test sequence execution for various test applications, such as production and manufacturing test applications...”, paragraph [0114] “... define properties around a class of steps to provide more configurability...”, paragraph [0017] “... Unit Under Test (UUT)...” paragraph [0123] “... measurement configuration parameters...”);

means for storing reconfigurable code for selectively performing the plurality of test actions (see at least e.g. FIG. 1, 102 and related text);

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means for receiving, from an external source, data for reconfiguring the reconfigurable code to perform the current one of the plurality of test actions (see at least paragraph [0004] “... test executive software allows the user to configure control test sequence execution for various test applications, such as production and manufacturing test applications...”);

means for determining how to perform the current one of the plurality of test actions (paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016] and e.g. FIG. 3, step 302 and related text); and

means for performing the current one of the plurality of test actions (see at least paragraph [0063] “...interface programs...other software programs...” paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016]);

Per claim 12 (Currently Amended), Richardson discloses the computing device of claim 11 wherein the means for interfacing with an external hardware driver further comprises:

means for determining a signal type corresponding to the identified test hardware resource (see at least paragraph [0057] and e.g. FIG. 3 and related text);

means for accessing as a function of the signal type an external control file having test hardware resource card-type information contained therein (paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016]) and

means for determining the test hardware resource card-type information as a function of a card-type identifier (paragraph [0015] “... modules that provide an application programming interface... executing and debugging sequences...” and paragraph [0016]).

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Per claim 13, Richardson discloses the computing device of claim 11 wherein the means for generating a plurality of test actions further comprises means for generating the plurality of test actions as a function of one or more test identification numbers received from a list of test identification numbers (see at least paragraph [0057] and e.g. FIG. 3 and related text).

Per claim 14, Richardson discloses the computing device of claim 11 wherein the means for generating a plurality of test actions to be performed on a unit-under-test further comprises means for generating a plurality of control files for configuring software code for generating the plurality of test actions (see at least paragraph [0078] "... library for the parameter list ... sequence developer...").

Per claim 15, Richardson discloses the computing device of claim 14 wherein the means for generating a plurality of control files further comprises means for generating one or more of the control files as a function of one or more test descriptions of signal types contained in an external reuse library (see at least paragraph [0078] "... library for the parameter list ... sequence developer...").

Per claim 16, Richardson discloses the computing device of claim 11, further comprising means for performing pass/fail analysis (see at least paragraph [0015] "... pass/fail results ...").

Per claim 17, Richardson discloses the computing device of claim 16, further comprising means for generating one or more test reports (see at least paragraph [0004] "... report generation..." and paragraph [0141]).

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Per claim 18 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 11), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 19 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 12), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 20 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 13), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 21 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 16), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 22 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 17), wherein all claim limitations have been addressed

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and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

Per claim 23 (Currently Amended), this is the computer program product version of the claimed architecture discussed above (Claim 14), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Richardson.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAC T. TECKLU whose telephone number is (571) 272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Isaac T Tecklu/  
Examiner, Art Unit 2192

/Michael J. Yigdall/  
Primary Examiner, Art Unit 2192